```
(Item 1 from file: 94)
 18/3,K/1
DIALOG(R) File 94: JICST-EPlus
(c) 2002 Japan Science and Tech Corp(JST). All rts. reserv.
         JICST ACCESSION NUMBER: 00A0145095 FILE SEGMENT: JICST-E
                                        Diode .
Development of ZnSe Light Emitting
SAEGUSA AKIHIKO (1); MATSUBARA HIDEKI (1); NAKANISHI FUMITAKE (1);
    NAKAMURA TAKAO (1); DOI HIDEYUKI (1); KATAYAMA KOJI (1); MITSUI
    TADASHI (1); TAKEBE TOSHIHIKO (1)
(1) Sumitomo Electr. Ind., Ltd.
Denki Gakkai Hikari, Ryoshi Debaisu Kenkyukai Shiryo, 1999,
    VOL.OQD-99, NO.50-55, PAGE.1-5, FIG.11, REF.6
JOURNAL NUMBER: Z0922AAY
UNIVERSAL DECIMAL CLASSIFICATION: 621.383:535.35
                                                   535.376:621.315.592
    548.5:621.315.592
                           COUNTRY OF PUBLICATION: Japan
LANGUAGE: Japanese
DOCUMENT TYPE: Conference Proceeding
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
                             Emitting Diode .
Development of ZnSe Light
SAEGUSĀ AKIHIKO (1); MATSUBARA HIDEKĪ (1); NAKANISHI FUMITAKE (1);
    NAKAMURA TAKAO (1); DOI HIDEYUKI (1); KATAYAMA KOJI (1); MITSUI
    TADASHI (1); TAKEBE TOSHIHIKO (1)
... ABSTRACT: 800 hours until the optical decreases to half of the initial
    value. Also the correlated color temperature of the white was the
    range of 3000K and above. This LED can be...
DESCRIPTORS: light emitting diode; ...
... color temperature
              (Item 2 from file: 94)
 18/3,K/2
DIALOG(R) File 94: JICST-EPlus
(c) 2002 Japan Science and Tech Corp(JST). All rts. reserv.
03634483 JICST ACCESSION NUMBER: 98A0593299 FILE SEGMENT: JICST-E
98 flat displays. LED display. Large LED full color display. Expanding
    applications by the practical application of blue LED.
OKAZAKI NORIHIKO (1); NAKAMURA TAKAO (1); KISHITA HIROYUKI (1) (1) Matsushita Commun. Ind. Co., Ltd.
Denshi Gijutsu(Electronic Engineering), 1998, VOL.40, NO.9, PAGE.57-62,
    FIG.9, TBL.1
                           ISSN NO: 0366-8819
                                                   CODEN: DEGIA
JOURNAL NUMBER: F0571AAK
UNIVERSAL DECIMAL CLASSIFICATION: 621.383:535.35 621.385:621.397
LANGUAGE: Japanese
                           COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Commentary
MEDIA TYPE: Printed Publication
98 flat displays. LED display. Large LED full color display. Expanding
    applications by the practical application of blue LED.
OKAZAKI NORIHIKO (1); NAKAMURA TAKAO (1); KISHITA HIROYUKI (1) ...DESCRIPTORS: light emitting diode; ...
... color display
 18/3,K/3
              (Item 3 from file: 94)
DIALOG(R) File 94: JICST-EPlus
(c) 2002 Japan Science and Tech Corp(JST). All rts. reserv.
          JICST ACCESSION NUMBER: 98A0091099 FILE SEGMENT: JICST-E
Personal Computer Technologies. Contact-Type Color Image Sensor Unit.
NAKAMURA TETSURO (1); MURATA TAKAHIKO (1); TANAKA EIICHIRO (1)
(1) Matsushitadenkisangyo Dokyumentogikaise
Natl Tech Rep, 1997, VOL.43, NO.6, PAGE.638-644, FIG.17, TBL.2
JOURNAL NUMBER: G0474AAH ISSN NO: 0028-0291 CODEN: NTROA
```

UNIVERSAL DECIMAL CLASSIFICATION: 681.327.2

COUNTRY OF PUBLICATION: Japan LANGUAGE: Japanese

DOCUMENT TYPE: Journal ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

Personal Computer Technologies. Contact-Type Color Image Sensor Unit. NAKAMURA TETSURO (1); MURATA TAKAHIKO (1); TANAKA EIICHIRO (1) ABSTRACT: A new color linear light source using a light guide has been developed by an original optical analysis...

...can illuminate an A4-size document with one chip each of blue, green and red colors . Great reduction in cost and power consumption has been attained. Also, a new color image sensor chip has been developed by CMOS process. This sensor chip operates on low...

...high sensitivity have been attained by a common gate amplifier. In addition, an A8-size color image sensor unit has been developed for handy scanners. This unit has one light source...

...DESCRIPTORS: color image...

emitting diode; ... light

(Item 4 from file: 94) 18/3,K/4 DIALOG(R) File 94: JICST-EPlus (c) 2002 Japan Science and Tech Corp(JST). All rts. reserv.

JICST ACCESSION NUMBER: 92A0759139 FILE SEGMENT: JICST-E Red Electroluminescent Devices Using CdSSe:Mn-ZnS Superlattices. TAKEUCHI YOJI (1); HIKIDA KYOKO (2); NAKAMURA TAKATO (2); ISHINO KEN'EI (2); ISHIDA AKIHIRO (2); FUJIYASU HIROSHI (2) (1) Shizuoka Univ.; (2) Shizuoka Univ., Faculty of Engineering Shinku (Journal of the Vacuum Society of Japan), 1992, VOL. 35, NO. 9,

PAGE.781-786, FIG.6, TBL.2, REF.15 ISSN NO: 0559-8516 CODEN: SHINA JOURNAL NUMBER: G0194AAG

UNIVERSAL DECIMAL CLASSIFICATION: 621.382 SS 621.383:535.35 535.376:621.315.592

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper MEDIA TYPE: Printed Publication

; HIKIDA KYOKO (2); NAKAMURA TAKATO (2); ISHINO KEN'EI (2); ISHIDA AKIHIRO (2); FUJIYASU HIROSHI (2)

...DESCRIPTORS: light emitting diode ;

... BROADER DESCRIPTORS: color;

```
(Item 1 from file: 2)
 20/3,K/1
DIALOG(R) File 2: INSPEC
(c) 2002 Institution of Electrical Engineers. All rts. reserv.
          INSPEC Abstract Number: B2000-05-4260D-020
 Title: White LED
  Author(s): Bogner, G.; Debray, A.; Heidel, G.; Hoehn, K.; Muller, U.;
Schlotter, P.
  Author Affiliation: OSRAM Opto Semicond. GmbH, Germany
  Journal: Proceedings of the SPIE - The International Society for Optical
Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA)
vol.3621
           p.143-50
  Publisher: SPIE-Int. Soc. Opt. Eng,
  Publication Date: 1999 Country of Publication: USA
  CODEN: PSISDG ISSN: 0277-786X
  SICI: 0277-786X(1999)3621L.143:W;1-5
  Material Identity Number: C574-1999-152
  U.S. Copyright Clearance Center Code: 0277-786X/99/$10.00
  Conference Title: Light-Emitting Diodes: Research, Manufacturing, and
Applications III
  Conference Sponsor: SPIE
  Conference Date: 27-28 Jan. 1999 Conference Location: San Jose, CA,
  Language: English
  Subfile: B
  Copyright 2000, IEE
Abstract: Since several years light emitting diodes are in use to generate white light. Pixels with green, red and blue LEDs are arranged
to get any coordinate in the CIE-diagram with matched current for each
diode. Luminescence conversion is a very promising method for production of
        {\tt LEDs} . An efficiency of more than 10 lm/W is already possible which
is as high as the efficiency of a normal incandescent lamp. First volume
```

projects with white LEDs for backlighting of dashboard and indicator instruments in the automotive area are running. By supplying more powerful

... UV-light only the emission spectrum of the fluorescence is responsible for the final LED color coordinates. Wavelength variations of the diode color point. This technology and further no longer influence the the chip brightness make common illumination developments to increase with LEDs possible.

...Descriptors: light emitting diodes ;

... Identifiers: mixed colored light...

... backlighting ;

25/3,K/1 (Item 1 from file: 2)

2:INSPEC DIALOG(R)File

(c) 2002 Institution of Electrical Engineers. All rts. reserv.

INSPEC Abstract Number: B87076274, C87063964

Title: Ultrasonic and infrared: from remote control to learning service

Author(s): Hafner, H.

Journal: Funkschau no.17 p.20-4 Publication Date: 14 Aug. 1987 Country of Publication: West Germany

CODEN: FUSHA2 ISSN: 0016-2841

Language: German Subfile: B C

Abstract: Presents a clear survey of remote control systems in consumer electronics, covering ultrasonic and infrared devices over the period since the 1950s. Ultrasonic systems were finally abandoned because they used up to 30 channels in the range between the line frequency and its 2nd harmonic. Several reasons explain their replacement by IR operation. Modern IR keypads usually employ two GaAs IR- LEDs as transmitters in series or parallel in digital code. A table compares the characteristics of 3 typical ICs used by TV manufacturers. Many features are common, e.g. 64 commands, 8*8 keying matrix, clock generator at about...

... 14 bit are transmitted on a 38 kHz carrier, which is sometimes suppressed, or by pulse width modulation in biphase code. Of interest is the emphasis on batteries used and the development towards...

... can be programmed by users by a 'teaching dialogue' between it and any equipment with IR remote facilities. Such devices will ease service problems arising out of the multiplicity of differing systems. In future, universal...

...Identifiers: pulse width modulation ;

(Item 1 from file: 8) 25/3,K/2

DIALOG(R) File 8: Ei Compendex(R)

(c) 2002 Engineering Info. Inc. All rts. reserv.

04895070 E.I. No: EIP97123965274

Title: Growth and characterization of mid-IR InAs//0//.//9Sb//0//.//1/InAs strained multiple quantum well liaht emitting diodes grown on InAs substrates
Author: Grietens, B.; Nemeth, S.; Van Hoof, C.; Van Daele, P.; Borghs, G.
Corporate Source: IMEC, Leuven, Belgium

Source: IEE Proceedings Optoelectronics v 144 n 5 Oct 1997. p 295-298

Publication Year: 1997

CODEN: IPOPE8 ISSN: 1350-2433

Language: English

Title: Growth and characterization of mid-IR InAs//0//.//9Sb//0//.//1/InAs strained multiple quantum well light emitting diodes grown on InAs substrates

Abstract: Molecular beam epitaxy (MBE) has been used to grow strained multiple quantum well InAs//0//.//9Sb//0//.//1 light - emitting dioc diodes (LEDs) lattice matched on InAs substrates. The LEDs exhibit room-temperature infrared emission at 3.4 mu m and can be used to...

...was 27.5 mu W under pulsed operation at 740 mA (30 kHz, 0.6% duty cycle). (Author abstract) 13 Refs.

Descriptors: Light emitting diodes; Semiconductor quantum wells; Semiconducting indium compounds; Infrared devices; Semiconductor device manufacture; Electroluminescence; Thermal effects; Substrates; Composition effects; Semiconductor growth

(Item 1 from file: 144) 25/3,K/3 DIALOG(R) File 144: Pascal (c) 2002 INIST/CNRS. All rts. reserv. 13871983 PASCAL No.: 99-0050220

Growth and characterisation of mid-IR InAs SUB 0 SUB . SUB 9 Sb SUB 0 SUB . SUB 1 /InAs strained multiple quantum well light emitting diodes grown on InAs substrates

Mid- IR optoelectronics - materials and devices GRIETENS B; NEMETH S; VAN HOOF C; VAN DAELE P; BORGHS G KRIER Tony, ed

IMEC, Kapeldreef 75, 3001 Leuven, Belgium; Department of
Microelectronics, FE1, Slovak Technical University, Ilkovicova 3, 812 19
Bratislava, Slovakia; INTEC, St.-Pietersnieuwstraat 41, 9000 Gent, Belgium
Department of Physics at Lancaster University, United Kingdom
Journal: IEE proceedings. Optoelectronics, 1997, 144 (5) 295-298
Language: English

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...IR InAs SUB 0 SUB . SUB 9 Sb SUB 0 SUB . SUB 1 /InAs strained multiple quantum well light emitting diodes grown on InAs substrates Mid-IR optoelectronics - materials and devices

Molecular beam epitaxy (MBE) has been used to grow strained multiple quantum well InAs SUB 0 SUB . SUB 9 Sb SUB 0 SUB . SUB 1 light - emitting diodes (LEDs) lattice matched on InAs substrates. The LEDs exhibit room-temperature infrared emission at 3.4 mu m and can be used to...

...output power was 27.5 mu W under pulsed operation at 740mA (30kHz, 0.6% duty cycle).

English Descriptors: Light emitting diode; Quantum well; Semiconductor materials; III-V compound; Mid infrared radiation; Molecular beam; Epitaxy; Growth; Characterization...

```
31/3,K/1
            (Item 1 from file: 2)
DIALOG(R) File 2: INSPEC
(c) 2002 Institution of Electrical Engineers. All rts. reserv.
4632117 INSPEC Abstract Number: B9405-7260-006
 Title: Novel prospects for EL displays
 Author(s): Pankove, J.I.
  Author Affiliation: Dept. of Electr. & Comput. Eng., Colorado Univ.,
Boulder, CO, USA
  Journal: Proceedings of the SPIE - The International Society for Optical
                          p.205-11
Engineering
              vol.1910
  Publication Date: 1993 Country of Publication: USA
 CODEN: PSISDG ISSN: 0277-786X
 U.S. Copyright Clearance Center Code: 0 8194 1143 4/93/$6.00
  Conference Title: Electroluminescent Materials, Devices, and Large-Screen
Displays
 Conference Sponsor: SPIE; Soc Imaging Sci. & Technol
  Conference Date: 1-2 Feb. 1993 Conference Location: San Jose, CA, USA
  Language: English
 Subfile: B
  ... Abstract: limitations. Electroluminescence appears on the threshold of
significant changes, hence it is too early to set standards. The driving
voltage is coming down, brightness and efficiency are increasing, and
the color range is expanding. The author reviews several developments that may lead to new EL devices: excitation by tunneling hot carriers,
recombination of ...
\dots by pn junctions into wide bandgap materials, and the use of quantum
wells to increase brightness and efficiency and to adjust the color by
mechanical design rather than by chemical strategy...
  ...Descriptors: light emitting diodes; ...Identifiers: driving voltage; ...
... brightness ;
 31/3, K/2
              (Item 2 from file: 2)
DIALOG(R)File
               2:INSPEC
(c) 2002 Institution of Electrical Engineers. All rts. reserv.
03605623 INSPEC Abstract Number: B90032159, C90027317
 Title: An electronic display board
 Author(s): Singh, H.R.; Chatterjee, D.; Kapoor, M.R.; Pavate, K.D.
  Author Affiliation: Central Electron. Eng. Res. Inst. Centre, CSIR, New
Delhi, India
  Journal: IETE Technical Review
                                    vol.6, no.3
  Publication Date: May-June 1989 Country of Publication: India
  CODEN: ITREEI ISSN: 0256-4602
  Language: English
  Subfile: B C
```

...Abstract: the design and development of a microprocessor based electronic display board for displaying information of **specific** values on a 2*2 square feet electronic board consisting of low **current LEDs**. The main system is built around an 8085 microprocessor with other supporting chips. The display board consists of low **current LEDS**, its driver circuit to maintain a proper and uniform **brightness** of all **LEDs** and a few 8255 PPIs to be used as data and control ports. The system...

 \dots displays the information which are entered from the keyboard. The screen can be used for \max diverse applications.

...Descriptors: light emitting diodes; Identifiers: low current LED...

31/3,K/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC

(c) 2002 Institution of Electrical Engineers. All rts. reserv.

03084237 INSPEC Abstract Number: B88022479

Title: A low-power semicustom integrated eight-channel infrared telemetry system for condition monitoring

Author(s): van Maaren, D.C.; Nordholt, E.H.

Author Affiliation: Dept. of Electr. Eng., Delft Univ. of Technol., Netherlands

Journal: Journal of Semi-Custom ICs vol.5, no.2 p.12-22

Publication Date: Dec. 1987 Country of Publication: UK

CODEN: JSCIER ISSN: 0264-3375

Language: English

Subfile: B

... Abstract: power infrared LED-PIN transmission link forms the basis of a highly reliable semicustom integrated multi -channel wireless telemetry system, to be used for acoustic-emission-level measurement condition-monitoring...

... of about 12 kHz. Channel spacing is 22 kHz. The FM signal modulates the of four series-connected LEDs which together yield an intensity intensity of 0.5 mW/sr at an average current of 1 mA. average radiant The FM signal includes zero-reference information to preserve the DC information...

... The receiver system has two separate detectors for diversity reception. Each detector has its own preselection circuitry, which rejects interference outside the 180-360 kHz band and provides low-noise amplification...

... Identifiers: series-connected LEDs; ...

... preselection circuitry

(Item 1 from file: 6) 31/3, K/4

DIALOG(R)File 6:NTIS

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0729708 NTIS Accession Number: PB-286 106/0/XAB

Personal Alpha Alarm

(Open file rept)

Lindsay, D. B.; Cohen, M. L.

Little (Arthur D.), Inc., Cambridge, MA. Corp. Source Codes: 208850

Sponsor: Bureau of Mines, Washington, DC.

Report No.: BUMINES-OFR-105-78

31 Mar 78 87p Languages: English

Journal Announcement: GRAI7901

this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A05/MF A01

...and can easily be mounted on a miner's safety cap. It is powered by electricity drawn from the cap-lamp battery, and consumes less than 100 nanoampere at 4 volts direct current . It is entirely passive and has no moving parts. Alpha-radiation orignating in the air...

... radiation in the air is communicated to the wearer by a small flashing light -- a light - emitting diode -- clipped to the brim of the safety cap. intensity of alpha radiation exceeds a predetermined When the threshold, the flashing mode changes to a continuous illumination, thus providing an alarm signal to...

... For its intended purpose, however, which is to give a timely warning of excessive levels (several times the normal control level) of radon and/or radon daughters in an individual's...

31/3,K/5 (Item 2 from file: 6)

DIALOG(R) File 6:NTIS

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0542902 NTIS Accession Number: UCRL-13603/XAB

Shaped Pulse Study. Final Report

Massey, G. A.; Elliott, R. A.

California Univ., Livermore Lawrence Livermore Lab.

Corp. Source Codes: 9500007

15 Aug 75 51p

Journal Announcement: GRAI7609; NSA7510

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A04/MF A01

... study of techniques for shaping optical pulses at wavelengths near 1.06 micrometers. For the **specific** application of interest to Lawrence Livermore Laboratory, the **intensity** of the pulse envelope should vary with time according to the expression I(t) = I...

...an optical shutter whose transmission is controlled with a gating signal to achieve the desired **intensity** time variation on a transmitted signal pulse. In this way it is possible to use...

... gating pulse shapes, e.g., exponential or Gaussian optical pulses with the dye cell or **voltage** ramps or sinusoids with the Pockels cell, to synthesize a very different time waveform on...

...cells and dye cells. Since relaxation effects become significant in dyes over time periods of **several** nanoseconds, and rapid transmission changes become more difficult to achieve in Pockels cells when the...

Descriptors: Visible radiation; *Pulse shapers; Design; Light emitting diodes; Light sources; Modulation

31/3,K/6 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2002 Inst for Sci Info. All rts. reserv.

05594098 Genuine Article#: WJ685 No. References: 8

Title: A LED light calibration source for dual-wavelength microscopy

Author(s): Beach JM (REPRINT)

Corporate Source: UNIV VIRGINIA, HLTH SCI CTR, DEPT BIOMED ENGN, 1105 W MAIN ST, STACEY HALL/CHARLOTTESVILLE//VA/22903 (REPRINT); UNIV VIRGINIA, HLTH SCI CTR, DEPT OPHTHALMOL/CHARLOTTESVILLE//VA/22903

Journal: CELL CALCIUM, 1997, V21, N1 (JAN), P63-68

ISSN: 0143-4160 Publication date: 19970100

Publisher: CHURCHILL LIVINGSTONE, JOURNAL PRODUCTION DEPT, ROBERT STEVENSON HOUSE, 1-3 BAXTERS PLACE, LEITH WALK, EDINBURGH, MIDLOTHIAN, SCOTLAND EH1 3AF

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: circular field of bi-chromatic illumination is formed by passing the crossed beams of two light emitting diodes (LEDS) through an optical diffuser and circular mask. The source is constructed using LEDs which emit light at wavelengths overlapping those of many of the dual-emission molecular probes used for measurement of calcium, pH and membrane potential. The light output can be independently varied to set the ratio of light intensities recorded at two wavelengths. Internally sampled voltages which are proportional to LED light output intensity provide an internal reference for comparison with optical recordings. The LED source is useful for obtaining the optical response of dual emission recording equipment for specific recording conditions defined by the filtering and light detection components of the system.

31/3,K/7 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2002 Inst for Sci Info. All rts. reserv.

03439803 Genuine Article#: PD440 No. References: 21

Title: WINDOW LAYER FOR CURRENT SPREADING IN ALGAINP LIGHT - EMITTING DIODE

Author(s): CHI GC; SU YK; JOU MJ; HUNG WC

Corporate Source: IND TECHNOL RES INST,OPTOELECTR & SYST LABS/HSINCHU//TAIWAN/; NATL CHENG KUNG UNIV,DEPT ELECT ENGN/TAINAN//TAIWAN/

Journal: JOURNAL OF APPLIED PHYSICS, 1994, V76, N5 (SEP 1), P2603-2611

ISSN: 0021-8979

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: WINDOW LAYER FOR CURRENT SPREADING IN ALGAINP LIGHT - EMITTING DIODE

Abstract: The current spreading effect and other characteristics of an AlGaInP double-heterojunction (DH) light - emitting diode (LED) were investigated via numerical calculation and experimental results. The finite difference method was employed...

- ...of a semiconductor device. Poisson's equation and two continuity equations were approximated by a **set** of equations under the assumption that the hole and electron **current** components along the mesh lines are constant between two neighboring mesh points. Additionally, the DH...
- ...model, in light of the fact that the former does not contribute significantly to the current spreading effect. Furthermore, a comparison of the measured light intensities from LEDs with the calculated current densities revealed a sufficient correlation. Experimental results indicated that a 10-mum-thick window layer...

...Research Fronts: SEMICONDUCTOR-DEVICE EQUATIONS; IDEAL SILICON P-N-JUNCTIONS)

92-6220 003 (ALGAINP/GAXIN1-XP STRAINED **MULTIPLE** QUANTUM-WELL VISIBLE LASER-DIODES; ROOM-TEMPERATURE CW OPERATION; GAS-SOURCE MOLECULAR-BEAM EPITAXY)

92...

31/3,K/8 (Item 3 from file: 34)

DIALOG(R) File 34: SciSearch(R) Cited Ref Sci (c) 2002 Inst for Sci Info. All rts. reserv.

02994185 Genuine Article#: MV089 No. References: 65

Title: PICOSECOND TRANSIENT PHOTOCONDUCTIVITY IN POLY(P-PHENYLENEVINYLENE)

Author(s): LEE CH; YU G; MOSES D; HEEGER AJ

Corporate Source: UNIV CALIF SANTA BARBARA, INST POLYMERS & ORGAN SOLIDS/SANTA BARBARA//CA/93106; UNIV CALIF SANTA BARBARA, DEPT PHYS/SANTA BARBARA//CA/93106

Journal: PHYSICAL REVIEW B-CONDENSED MATTER, 1994, V49, N4 (JAN 15), P 2396-2407

ISSN: 0163-1829

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

- ... Abstract: of about 600 ps. The magnitude of the fast component is proportional to the light **intensity** and independent of temperature, while the magnitude of the slower component is proportional to the square root of the light **intensity** and decreases as temperature decreases with a thermal-activation energy of about 100 meV. We...
- ...an interband transition. The interpretation of the initial temperature-independent transient photocurrent as the displacement current from the field-induced polarization of neutral excitons is ruled out by careful analysis of...

...E(exc)approximate to 0.4 eV. A variety of measurements has enabled us to set an upper limit on E(exc) in PPV and several of its alkoxy derivatives; E(exc) is comparable to, or less than, k(B)T...
...Identifiers--POLYDIACETYLENE SINGLE-CRYSTALS; LIGHT - EMITTING - DIODES

; POLY(PARA-PHENYLENE VINYLENE); CONDUCTING POLYMERS; CONJUGATED POLYMERS; POLY(2,5-THIENYLENE VINYLENE); POLY(PHENYLENE...

31/3,K/9 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
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01669434 ORDER NO: AAD99-06145

THE RAPID SOLID-STATE SYNTHESIS OF GROUP III AND TRANSITION METAL NITRIDES AT AMBIENT AND HIGH PRESSURES (GALLIUM NITRIDE)

Author: WALLACE, CHARLES HENRY

Degree: PH.D. Year: 1998

Corporate Source/Institution: UNIVERSITY OF CALIFORNIA, LOS ANGELES (

0031)

Source: VOLUME 59/09-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 4806. 209 PAGES

...of ultra-pure, crystalline materials. To meet this need, new ways of synthesizing materials with **specific** properties that are difficult or impossible to produce using traditional methods must be developed. The...

...and electronic materials, such as binary and ternary metal carbides, nitrides, phosphides, sulfides and oxides. **Several** important materials, including graphite, gallium nitride, indium nitride, tantalum nitride, silicon nitride and cubic boron...

...materials. Since gallium nitride is an important direct wide-bandgap semiconductor of interest for high **brightness**, blue **light - emitting diodes**, lasers and flat panel displays, a large majority of the research described has been devoted...

...produce materials, that were previously unobtainable, and provide novel, efficient routes to materials, that are currently difficult to produce.